AMENDMENT

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 - 21. (Canceled)

22. (Previously Presented) A method capable of use for speech processing, the method comprising:

synthesizing a first filter having at least one pseudo-cepstral coefficient based on a set of linear predictive coding coefficients; and

processing one or more frames of speech using the first filter.

23. (Previously Presented) The method of claim 22, wherein a pseudo-cepstral coefficient is a parameter relating to a pseudo-cepstrum domain existing between the linear predictive coding domain and the line spectral frequency domain.

24. (Previously Presented) The method of claim 22, wherein the first filter emphasizes speech frequency components related to at least one formant based on the set of linear predictive coding coefficients and de-emphasizes speech frequency components related to at least one spectral valley based on the set of linear predictive coding coefficients.

25. (Previously Presented) The method of claim 24, wherein the first filter compensates for spectral tilt.

26. (Previously Presented) The method of claim 24, wherein the one or more pseudo-cepstral coefficients are derived based on the formula:

$H_S(z) \cong (P_M(z/\alpha_1) Q_M(z/\alpha_2)) / A_M^2 (z/\beta)$,

wherein $P_M(z) = A_M(z) + z^{-(M+1)} A_M(z^{-1})$, $Q_M(z) = A_M(z) - z^{-(M+1)} A_M(z^{-1})$ and α_1, α_2 and β are control parameters, and wherein $A_M(z)$ relates to a linear predictive coding transfer function and M is the order of the linear predictive coding transfer function.

27. (Previously Presented) The method of claim 26, wherein $0 < \alpha_1$, $0 < \alpha_2$ and $\beta < 1.0$.

28. (Previously Presented) The method of claim 26, wherein $\alpha_1 + \alpha_2 = \beta$.

29. (Previously Presented) The method of claim 24, wherein the one or more pseudo-cepstral coefficients are derived based on the formula:

$H_S(z) \cong (P_M(z/\alpha_1) Q_M(z/\alpha_2)) / A_M(z/2\beta)$,

wherein $P_M(z) = A_M(z) + z^{-(M+1)} A_M(z^{-1})$, $Q_M(z) = A_M(z) - z^{-(M+1)} A_M(z^{-1})$ and α_1, α_2 and β are control parameters, and wherein $A_M(z)$ relates to a linear predictive coding transfer function and M is the order of the linear predictive coding transfer function.

30. (Previously Presented) The method of claim 26, wherein $0 < \alpha_1$, $0 < \alpha_2$ and $\beta < 0.5$.

31. (Previously Presented) The method of claim 27, wherein $\alpha_1 + \alpha_2 = 2\beta$.

32. (Previously Presented) The method of claim 24, wherein the one or more pseudo-cepstral coefficients are derived based on the formula:

$H^{m}_{S}(z) \equiv (P_m(z/\alpha_1) Q_m(z/\alpha_2)) / A_M(z/2\beta)$,

wherein α_1, α_2 and β are control parameters, $P_m(z) = A_m(z) + z^{-(m+1)} A_m(z^{-1})$, $Q_m(z) = A_m(z) - z^{-(m+1)} A_m(z^{-1})$, and wherein $A_M(z)$ relates to a linear predictive coding transfer function and M is the order of the linear predictive coding transfer function, and wherein $A_m(z)$ is a second linear predictive coding transfer function based on $A_M(z)$, m is the order of $A_m(z)$ and $1 \leq m \leq M$.

33. (Previously Presented) The method of claim 32, wherein $0 < \alpha_1$, $0 < \alpha_2$ and $\beta < 0.5$.

34. (Previously Presented) The method of claim 32, wherein $\alpha_1 + \alpha_2 = 2\beta$.

35. (Currently Amended) A filter that processes speech, comprising at least one pseudo-cepstral coefficient based on a set of linear predictive coding coefficients associated with speech, wherein the at least one pseudo-cepstral coefficient is a parameter related to a pseudo-cepstrum domain existing between the LPC domain and the line spectral frequency domain.

36. (Cancelled)

37. (Previously Presented) The filter of claim 35, wherein the filter emphasizes speech frequency components related to at least one formant based on the set of linear predictive coding

coefficients and de-emphasizes speech frequency components related to at least one spectral valley based on the set of linear predictive coding coefficients.

38. (Currently Amended) A frame of speech processed by a first filter, the first filter being synthesized and having at least one pseudo-cepstral coefficient based on a set of linear predictive coding coefficients, wherein the at least one pseudo-cepstral coefficient is a parameter related to a pseudo-cepstrum domain existing between the linear predictive coding domain and the line spectral frequency domain.

39. (Cancelled)

40. (Previously Presented) The frame of speech of claim 38, wherein the one or more pseudo-cepstral coefficients are derived based on the formula:

$H_S(z) \equiv (P_M(z/\alpha_1) Q_M(z/\alpha_2)) / A_M^2 (z/\beta)$,

wherein $P_M(z) = A_M(z) + z^{-(M+1)} A_M(z^{-1})$, $Q_M(z) = A_M(z) - z^{-(M+1)} A_M(z^{-1})$ and α_1, α_2 and β are control parameters, and wherein $A_M(z)$ relates to a linear predictive coding transfer function and M is the order of the linear predictive coding transfer function.